#### New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) Permit

# **Best Management Practices Plan Implementation Training**

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## JFK Airport BMPP Implementation Training

- What is the BMPP Program and Why is it important?
- Sources of Pollution
- Pollution Prevention Team
- Best Management Practices



### JFK Airport BMPP Implementation Training

# Why is it important to implement Best Management Practices (BMPs)?

- a) Protect the surrounding water bodies
- b) Protect human health
- c) Avoid costly fines
- d) All of the above





# Regulatory Requirements 2





"Contaminated stormwater discharges from industrial facilities into surface waters are to be minimized or eliminated" -- Clean Water Act





# **Regulatory Requirements**



- National Pollutant Discharge Elimination System (NPDES)
  - The Clean Water Act prohibits anybody from discharging "pollutants" through a "point source" into a "water of the United States" unless they have an NPDES permit.
- State Pollutant Discharge Elimination System (SPDES)
  - New York State Department of Environmental Conservation (NYSDEC) SPDES program is designed to eliminate the pollution and to maintain the highest quality of water possible consistent with:
    - public health
    - public enjoyment of the resource
    - protection and propagation of fish and wildlife
    - Industrial development in the state



#### **SPDES Permit Special Conditions**

- Develop, maintain, and implement a <u>Best Management</u>
   <u>Practices Plan (BMPP)</u> to prevent significant release of pollutants to waters of the State and eliminate or reduce pollutant loadings in stormwater
- Develop and apply <u>Best Management Practices</u>
   (BMPs) to minimize potential releases
  - 13 Minimum BMPs
  - Activity Specific BMPs

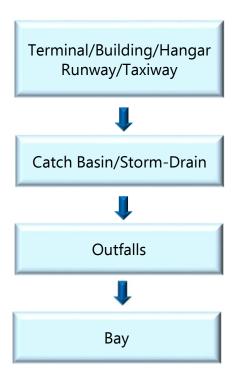




#### JFK International Airport Facility

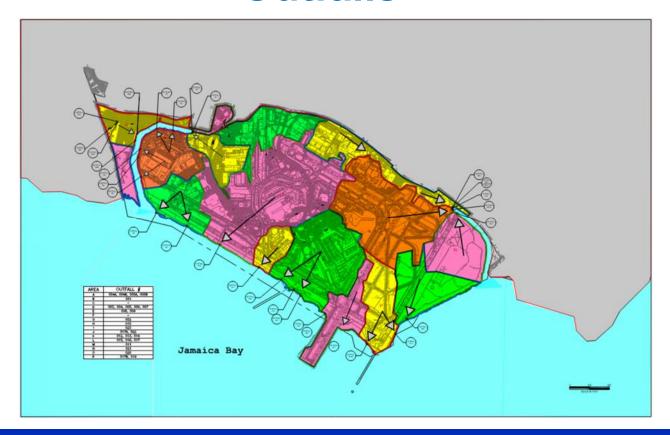
Identify where activities may be exposed to runoff

- 4,590 acres
- Terminals (CTA is approx. 880 acres)
- Buildings
- Hangars
- 9 miles of runway
- 25 miles of taxiway
- 16 drainage areas
- 6,000 catch basins
- 26 stormwater outfalls
- Outfalls discharge to Jamaica Bay, Thurston Bay, Head of Bay, and Bergen Basin





## **Outfalls**

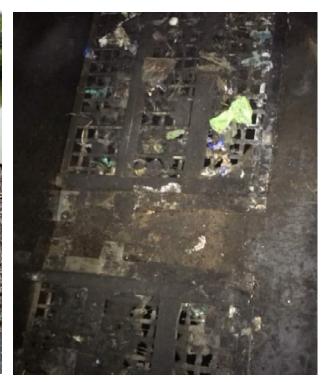




# **Outfalls**











#### Aircraft, Vehicle, and Equipment Maintenance

- Lubricants
- Fuels
- Anti-freeze
- Degreasers

#### Aircraft, Vehicle, and Equipment Fueling

- Gasoline, Diesel, Jet Fuel
- Fuel Vapors

#### **Aircraft Sanitary Service**

- Bacteria
- Lavatory flushing chemicals







- Building and Grounds Maintenance
  - Pesticides
  - Herbicides
  - · Oils and Grease
  - Petroleum Hydrocarbons
- Chemical Storage and Fuel Storage
  - Petroleum Hydrocarbons
  - Lubricants
  - Paints
  - Battery Acid
  - Solvents



- Food Handling Operations
  - Oil and grease
  - Bacteria
- Fire Fighting Foam Testing
  - PFAS Compounds
- Aircraft & Pavement
- Deicing/Anti-icing
  - Propylene Glycol
  - Sodium Acetate
  - Potassium Acetate





## Fire Fighting Foam Discharge

- Purpose: Eliminate discharges to the storm drain system associated with flushing or testing of FFFS
- Perform testing operations in designated areas
- Properly dispose or recycle foam discharge
- Service sump regularly
- Discharge must be collected, drummed, and transported to an approved and permitting facility
- Routinely clean and maintain collection vault as necessary
- Comply with requirements related to Chemical Bulk Storage

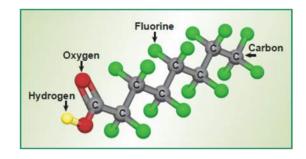




# Perfluorinated Chemicals (PFCs)

NYSDEC Regulatory Impact Statement (April 25, 2016)

- PFOA-acid, PROA-salt, PFOS-acid, and PFOS-salt are added to the list of hazardous substances (6 NYCRR Section 597.3).
- Mixtures containing PFOA/PFOS in concentrations of 1% or more, stored in AST of 185 gallons or more or any size UST, are subject to CBS regulations.
- Releases of PFOA/PFOS to the environment is prohibited. Any release greater than 1 lbs, must be reported to the NYSDEC spill hotline.

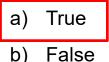






#### Responsible & Accountable Parties

The lease holding tenant is ultimately responsible for any and all BMP deficiencies occurring at the leased property, including deficiencies observed from sub-tenants and contractors.





#### Responsible & Accountable Parties

- The Port Authority is responsible for developing and implementing an airport wide BMPP
- Tenants are to develop and implement specific BMPs that are applicable to their operation
- Tenants whom manage multiple "sub-tenants" are responsible for the actions of those sub-tenants
- All Sub-Tenants and Facility Staff (e.g., contractors, sub-contractors, and deicing entities) are responsible to maintain compliance with the BMPP and report spills and other incidents if they occur no matter whom caused the incident



- Chris Jones, Manager of Environmental Services
  - Tel: 718-244-3546
  - JFK Environmental@panynj.gov
- The Environmental Maintenance Unit perform inspections of the facilities maintained by the PANYNJ
- A designee from each tenant site is on the Pollution Prevention Team and is responsible for implementation of the BMPP on tenant property.



- Tenants and contractors must identify a corporate level representative
   Environmental Manager, Corporate Health & Safety Manager, Compliance
   Manager, etc. responsible for BMPP Training and implementation of the BMPP on tenant property
- Second on-site tenant contact/ facility manger/representative.
- Pollution Prevention Team Members complete the BMP Self-implementation Inspection Form



# Tenant BMPP Implementation Consists of:

- Attending BMPP Training
- Conduct Routine Facility Inspections
- Corrective Action for Environmental Infractions
- Complete Reporting Forms





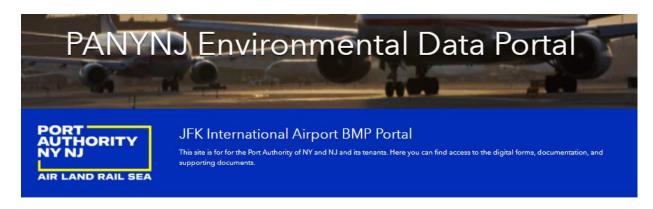
# **BMPP Implementation Inspections**

Tenant BMPP Reporting Requirements	
Specific Reporting Forms	Frequency
Spill Reporting Form	Within one day of incident
Deicing/Anti-icing Reporting Form	By 15 <sup>th</sup> of the Month following deicing/anti-icing activities
Deicing Inspection Form	December 15 <sup>th</sup> annually
BMP Self-Inspection Form	May 26 <sup>th</sup> annually
Team Member Designation Form	At PANYNJ training and when new designations are made

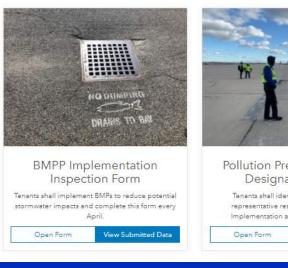


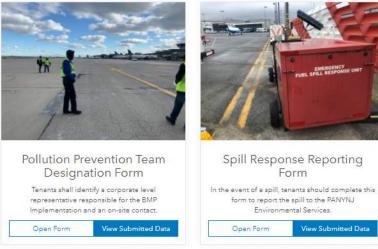
#### **PANYNJ Environmental Data Portal**





#### **Annual Reporting Forms**







## **BMP Self Inspection Form**

#### BMPP Implementation Inspection Form Please submit tenant self-inspection by April 30 of each year. The Best Management Presists Plan (BMPP) implementation inspection form shall be completed twice annually land by the tenants and one by PANNUA for all activities their passersis) impact asseminate or a PK engage. The tenants will candust a self-impection by the end April of each year and the PANNUA will candust an additional data with suring June 4-year tenants and interest and the results of the inspections will be greatered in the Annual Fastility and Bat Integration Regard for the Regard for the Annual Regard for the Regar If you need help filling out this form, please contact JFK\_Environmental@panynj.gov Inspection Type Click here to access information on the New York State Bulk Storage Program BMPP Key Compliance Common Acronyms Tonant Scilling poston Avaid castly permit violations and problems mooting SPDES permit compliance requirements with proper AST Abereground Storage Tank inappearien and maintenance of \$1/Fs. Inspector Name/Title Stammuster SMAs require regular inspections and maintenance to ensure long-term function. CBS Chamisel Bulk Stereos PSS Petroleum Bulk Storage inapostions and appropriate reporting are the main effective way to detect an avoid patential problems before they become a liability. Contact Phone Number **BMP Fact Sheets** References Contact Email Address The BMPF and exples of all SMPF forms are located on the Environmental Services website a Date and Time of Inspection EMP 5: Building Cleaning and ma should be aubmitted to JFC\_Environmental@penynl.gov EB 9/11/2020 BMP 6: Chemical and Petroleum Storage and Handling Contact (i) 03:02 PM EMF 7: Elimination of Non-Stormwater Discharges To Storm Drains Chrisopher M. Jenes. P.E. Manager, Environmental Programs The Part Authority of NY & NJ John F. Konnedy International Airpart 814, 1st Floor, South Service Road Other Attendants Accompanying Inspector EMP E: Soils Management BMF 9: Levelory Service Operation

- •BMP Self Inspection Form due by April 30 of each year
- •Be sure to include the following:
  - PBS or CBS Registration(s)
  - All reported NYSDEC spills
    - Petroleum spills greater than 5 gallons
    - •Any spills higher than specific reportable quantity
    - •Any spill that enters a catch basin
  - Dates of latest revisions to environmental plans
  - Additional on-site contacts



# New York State Department of Environmental Conservation

- The DEC can conduct random inspections of all JFK facilities
- State Pollutant Discharge Elimination System (SPDES)
- BMPs are guidelines for adhering to the State and National regulations

\$\$ COSTLY FINES \$\$



# **Best Management Practices**



#### **Preventative Maintenance**

- Develop a schedule for routine observations and maintenance for:
  - Structural BMPs (oil/water separator, catch basins, berms)
  - Equipment with potential to leak
- Check performance of equipment & systems
- Prompt repair or contain defective equipment
- As per 6 NYCRR Part 613.3(d): Maintenance of Spill Prevention Equipment, "The owner or operator must keep all gauges, valves, and other equipment for spill prevention in good working order"







# **Good Housekeeping**

- Keep equipment and storage areas in clean and orderly manner
- Perform maintenance and repair activities indoors and under cover
- Maintain inventory of material used
- Prevent practice of hosing down the apron or hangar floor
- Collect storm water runoff from the maintenance area and provide treatment or recycling





# **Spill Prevention & Response**

- Spill Prevention & Response (SRP) Plan
  - Names and numbers for emergency contacts, coordinators and clean-up contractors
  - Identify and characterize potential spills
  - Eliminate or reduce spill potential
  - How to respond to different types and size of spills
- Develop and implement Spill Prevention Control & Countermeasure (SPCC) Plan







#### **Erosion and Sediment Control**

- Construction projects of any size should be reviewed before the project begins to determine if adequate soil and erosion control measures will be implemented
- JFK construction projects are covered under the JFK Individual SPDES Permit
- Construction project that involves soil disturbance of one or more acres must follow the SPDES Permit including submitting a NOI and SWPPP









# **Activity Specific BMPs**

- 1. Aircraft Deicing/Anti-icing
- 2. Aircraft, Vehicle, and Equipment Fueling
- 3. Aircraft, Vehicle, and Equipment Maintenance
- 4. Aircraft, Vehicle, and Equipment Washing
- 5. Building Cleaning and Maintenance
- Chemical and Petroleum Storage and Handling
- 7. Elimination of Non-Stormwater Discharges to Storm Drains
- 8. Spills Management
- 9. Lavatory Service Operations

- 10. Oil/Water Separators
- 11. Outdoor Handling of Material
- 12. Outdoor Material and Equipment Storage
- 13. Waste Management
- 14. Fire Fighting Foam Discharge
- 15. Stormwater Pollution Prevention Education
- Street Sweeping and Stormwater Facility Management
- 17. Security
- 18. Rubber Removal
- 19. Runway and Taxiway Anti-icing



# **Aircraft Deicing/Anti-icing**

- Ethylene glycol and Urea is prohibited
- Purpose: Prevent or reduce the discharge of pollutants to soil, groundwater, and/or storm water from aircraft deicing
- Apply only required amounts of deicing fluid
- Use a range of glycol/water blends
- Upgrade existing truck fleet
- Limit secondary deicing
- Dry weather discharge of material is prohibited
- Recordkeeping: Report glycol releases to appropriate regulatory agencies





## Aircraft, Vehicle, and Equipment Fueling

- Purpose: Prevent or reduce the discharge of pollutants to storm water, groundwater, soil and air from aircraft, vehicle, and equipment fueling
- Restock spill kits
- Install berms, curbing, or canopies around fueling areas
- Post "NO TOPPING OFF" signs
- Use drain blockers at catch basins, or install gate valves at catch basins for use during fueling activity
- Install "breakaway" hose connections
- Designate area for mobile fueling
- Maintain monitoring equipment





#### Aircraft, Vehicle, and Equipment Maintenance

- Purpose: Prevent or reduce the discharge of pollutants to surface water, groundwater, POTW, soil and air from aircraft, vehicle, and equipment maintenance and repair
- Perform maintenance indoors and under cover
- If maintenance occurs outdoors, perform away from storm water drains
- Consider offsite maintenance by contractors
- Use drip pans
- Drain oil cans/ filters





# Aircraft, Vehicle, and Equipment Maintenance







## Aircraft, Vehicle, and Equipment Washing

- Purpose: Prevent or reduce the discharge of pollutants to soil, groundwater, and storm water drains from aircraft, vehicle, and equipment degreasing
- Cover catch basins in areas where washing occurs
- Reclaim/recover 100% wash water and recycle or discharge appropriately
- Use dry washing techniques in designated areas
- Provide training to employees





## Aircraft, Vehicle, and Equipment Washing







## **Building Cleaning and Maintenance**

- Purpose: Prevent or reduce the discharge of pollutants during building cleaning and maintenance activities
- · Common deficiencies observed:
  - Cap or disconnect floor drains in areas where maintenance occurs
  - Provide secondary containment for drums
  - Clean stained areas and contain/manage spills
- Perform maintenance activities indoors and under cover
- Properly dispose of blowdown with other oily waste waters
- Properly dispose of landscape waste, wash water, sweepings, and sediments.
- Use dry pavement cleaning methods
- · Initiate employee spill prevention and response training













### **Chemical and Petroleum Bulk Storage**

### Petroleum Bulk Storage (PBS) / Chemical Bulk Storage (CBS) :

"The operator must display <u>a registration certificate</u> which is current and valid on the premises of the facility at all times."

"the owner or operator must <u>permanently mark all fill ports</u> to identify the product inside the tank. These markings must be consistent with the color and symbol code of the American Petroleum Institute"

Operators of USTs must keep <u>daily inventory records</u> (and maintain them for five years). They must also test tanks and pipes every five years.

Operators of ASTs must conduct <u>monthly visual inspections</u> and a 10 year inspection.

Tanks that are <u>temporarily out of service</u> (30 days or more) must be drained of product, fill lines and gauge openings must be capped. Inspection and registration must continue.





### **NY PBS Regulation**

Update the PBS Registration for your sites to include your name and authorization numbers to designate yourself as an operator.

- This counts as an "Information Correction", there are no fees associated with this update.
- You may use the blank PBS registration application
   (<a href="http://www.dec.ny.gov/docs/remediation\_hudson\_pdf/pbsrenewal.pdf">http://www.dec.ny.gov/docs/remediation\_hudson\_pdf/pbsrenewal.pdf</a>) to update your registration, or you may send a request for a pre-filled, digital copy of your registration by sending an email to <a href="mailto:operatortraining@dec.ny.gov">operatortraining@dec.ny.gov</a>.
- Be sure to specify the PBS numbers of the sites for which you want to be designated.

### Print your Authorization Certificate and file it with your PBS records.

 Your certificate is accessible to you when you log in to your User Dashboard:(<a href="https://www.dec.ny.gov/about/101500.html">www.dec.ny.gov/about/101500.html</a>)



## **NY PBS Regulation**

**Used oil** is any oil, whether refined from crude or synthetic, that has been contaminated by physical or chemical impurities as a result of use.

### Typical uses include:

- Automotive and industrial lubricants
- Spent motor oil, hydraulic fluids
- Refrigeration coolants, metalworking, cutting oils, electrical insulating oil

### **Storage Requirements Summary:**

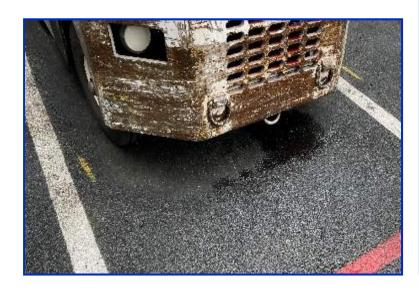
- Above ground: kept in good condition, must not leak, must be labeled "USED OIL", must be labeled with the tank's design and working capacity
- **Below ground:** fill pipes of underground tanks must also be labeled with the tank's capacity, also subject to Federal Regs 40 CFR 280
- All tanks storing used oil must be registered with the NYSDEC. The fees depend upon the total petroleum storage capacity of the facility, how it is used, and whether it is stored above ground or below ground. For more information, refer to the NYSDEC Petroleum Bulk Storage Registration Fee Worksheet at <a href="https://www.dec.ny.gov/docs/remediation\_hudson\_pdf/pbsform.pdf">https://www.dec.ny.gov/docs/remediation\_hudson\_pdf/pbsform.pdf</a>.
- Additional information about <u>used oil</u> can be found on the <u>NYSDEC webpage</u> at https://www.dec.ny.gov/chemical/8786.html







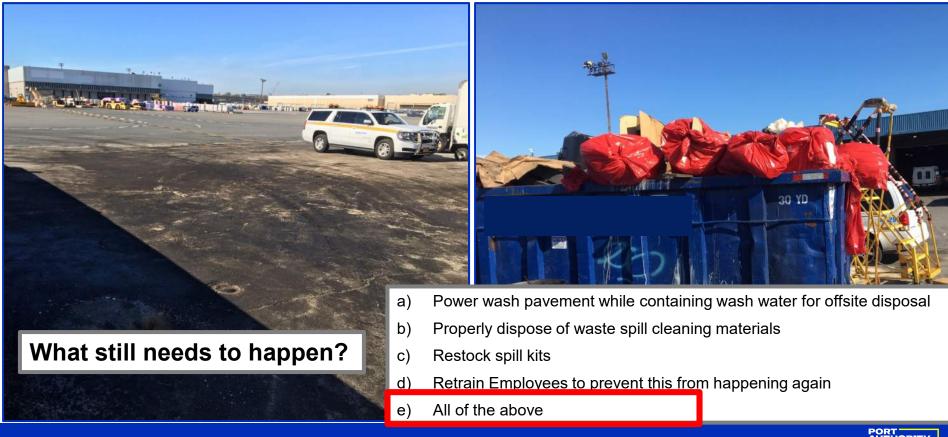
 Spills both big and small require immediate response







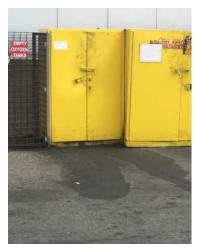








- Develop spill prevention plans to contain accidental and continuous releases of petroleum products and/or hazardous substances
- Identify proper reporting procedures to implement in the event of a spill
- Immediate containment/cleanup of spills
- Maintain Spill Response Kit
  - Fueling Stations/ Areas
  - Material Storage/Handling
  - Maintenance Areas
- Required agency notification
- Properly dispose all absorbent material







## Reporting of Spill Incidents

### **Petroleum Spills**

Type of Spill	Quantity	Did Spill Enter Storm Drain?	Agency to Notify	Phone Number
Petroleum	<b>Greater than (&gt;)</b> 5 gallons	Yes	NYSDEC NRC USCG PANYNJ	1-800-457-7362 1-800-424-8802 718-354-4120 See Spill Guidance Sheet for all PANYNJ Numbers
Petroleum	Greater than (>) 5 gallons	No	NYSDEC PANYNJ	1-800-457-7362 See Spill Guidance Sheet for all PANYNJ Numbers
Petroleum	<b>Less than (&lt;)</b> 5 gallons	Yes	NYSDEC NRC USCG PANYNJ	1-800-457-7362 1-800-424-8802 718-354-4120 See Spill Guidance Sheet for all PANYNJ Numbers
Petroleum	<b>Less than (&lt;)</b> 5 gallons	No	PANYNJ*	See Spill Guidance Sheet for all PANYNJ Numbers

<sup>\*</sup> All Spills must be cleaned up within 2 hours of discovery or NYSDEC and NRC must be notified regardless of the quantity of material spilled.

Notify Environmental Services, PANYNJ Police and Operations of <u>any</u> spills Complete PANYNJ Spill Reporting Form within <u>one business day</u>



## Reporting of Spill Incidents

### **Hazardous Substance Spills**

Type of Spill	Quantity	Did Spill Enter Storm Drain?	Agency to Notify	Phone Number
Hazardous Substance	<b>Greater than (&gt;)</b> Reportable Quantity (RQ)	Yes	NYSDEC NRC USCG PANYNJ	1-800-457-7362 1-800-424-8802 718-354-4120 See Spill Guidance Sheet for all PANYNJ Numbers
Hazardous Substance	Greater than (>) Reportable Quantity (RQ)	No	NYSDEC NRC PANYNJ	1-800-457-7362 1-800-424-8802 See Spill Guidance Sheet for all PANYNJ Numbers
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<sup>\*</sup> All Spills must be cleaned up within 2 hours of discovery or NYSDEC and NRC must be notified regardless of the quantity of material spilled.

Notify Environmental Services, PANYNJ Police and Operations of <u>any</u> spills Complete PANYNJ Spill Reporting Form within <u>one business day</u>



### Reporting of Spill Incidents

Within **one day <u>ALL SPILLS</u>** must be reported to PANYNJ:

Tenants and contractors are required to notify Port Authority Central Police, Operations, and Environmental Services of any spill event.

\*Port Authority Central Police: 718-244-4333
\*Port Authority Operations: 718-244-3800

\*Port Authority Environmental Services: 718-244-3568

Tenants and contractors must complete the Spill Reporting Form within one business day of any spill event.

Note: Reporting to the Port Authority does not preclude the requirement to contact other agencies (i.e. NYSDEC and NRC).



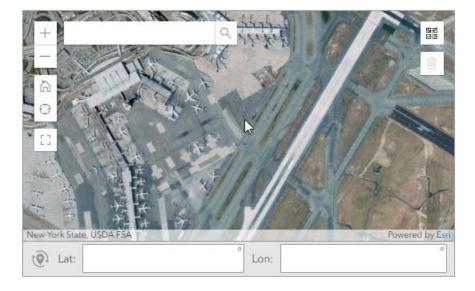
### **Spill Response Reporting Form**

# Spill Reporting Form Please submit this form within one business day of any spill. Teners and contractors shall complete an electronic copy (or Print, complete, and scen completed copy) of the Spill Reporting Form and submit to the Illeaguer of Environmental Services (JPK, E



#### Location of Spill

Pan and click on the map where the spill has occurred





# **Lavatory Service Operations**

- Purpose: Reduce and eliminate discharges to the storm drain system associated with ground servicing of aircraft lavatory facilities
- Discharge and clean trucks only in triturate facilities. Do not discharge to sanitary sewer.
- Capture drippage using buckets or pans
- Absorbent material and other containment equipment should always be readily available





## **Outdoor Handling of Material**

- Purpose: Prevent or reduce the discharge of pollutants during loading and unloading of material and cargo
- Conduct loading/unloading under cover
- Transfer materials in paved areas away from storm drains
- Immediately contain and absorb leaks during transfers
- Use drip pans under hoses
- Keep containers closed when not in use.







# **Outdoor Handling of Material**





### **Outdoor Material and Equipment Storage**

- Purpose: Prevent or reduce discharge of pollutants from outdoor storage areas for significant material
- Store on spill pallets, berming or secondary containment
- Store materials indoors and under cover
- Conduct periodic inspections for spills, leaks, damaged containers/ hoses, and document
- Post Safety Data Sheet (SDS)
- Properly discharge stormwater/ spilled material from secondary collection
- Eliminate excessive oil and grease buildup on equipment







## **Outdoor Material and Equipment Storage**





## **Waste Management**

- Provide sheltered and designated waste storage and recycling areas
- Streamline operations to minimize waste generation
- Maintain records of waste generation and disposal
- Obtain appropriate registrations for any hazardous waste generation
- Properly manage Universal Waste
- Drain all fluid from parts and equipment prior to disposal
- Verify proper waste disposal practices for contractors.







## Street Sweeping and Pavement Cleaning

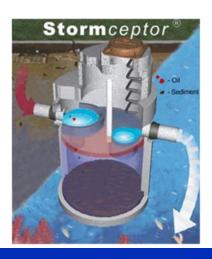
- Purpose: Reduce the amount of solids and floatable materials entering the storm system
- Establish inspection schedule and regularly clean out catch basins
- Street sweeping is required on a routine basis in catch basin areas.
   Aeronautical areas swept once per week
- Clean heavily utilized areas routinely to minimize small spills and leaks from
  - entering storm drain
- Repair eroded sites

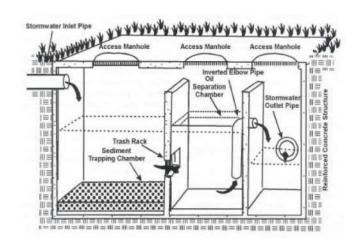


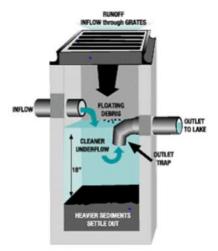
## **Stormwater Facility Maintenance**

### Oil/Water Separator, Catch Basins, Stormceptors

- Inspect and clean routinely for accumulated oil, grease, floating debris, and sediment
- Perform and document in a log book all inspections and maintenance operations
- Properly dispose of all liquid and solid waste from cleaning activities.









### **Catch Basins**

- Catch basins are cleaned when deposits are one-third the distance from the basin bottom to the invert of the pipe or opening into out of the basin.
- If woody debris or trash accumulates in a catch basin, clean the basin on at least a weekly basis.
- Remove immediately any petroleum material in catch basins (including a sheen).
- Refer to the stormceptors's O&M manual for recommended cleaning frequency.







## **Catch Basins**





### **PANYNJ Website**

### PANYNJ – JFK Airport BMPP Plan and Forms are available at:

https://www.panynj.gov/port-authority/en/business-opportunities/aviation-documents.html

### The following information is available on the PANYNJ Website and Environmental Portal:

- JFK Stormwater Best Management Practices Plan
- Deicing/Anti-icing Reporting Form
- BMPP Implementation Inspection Form
- Spill Reporting Form
- Environmental Infraction Corrective Action Inspection Form
- Pollution Prevention Team Member Designation Form



### Federal & State Links

- USEPA Storm Water Management for Industrial Activities, EPA 832-R-92-006 www.nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20000469L.txt
- USEPA Storm Water www.epa.gov/ebtpages/watestormwater.html



NYSDEC – Division of Water SPDES Program



www.dec.ny.gov/permits/6054.html



## **Questions?**

JFK\_Environmental@panynj.gov

Chris Jones - cjones@panynj.gov 718-244-3546



PORT AUTHORITY NY NJ

# **Thank You!**

**AIR LAND RAIL SEA**